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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,235	11/12/2003	Munekatsu Shimada	50353-624	3529

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MCDERMOTT, WILL & EMERY
600 13th Street, N.W.
Washington, DC 20005-3096

EXAMINER

SHEEHAN, JOHN P

ART UNIT	PAPER NUMBER
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1742

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/705,235

Applicant(s)

SHIMADA ET AL.

Examiner

John P. Sheehan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 12-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. This application contains claims 12 to 19 drawn to an invention nonelected with traverse. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections - 35 USC § 102/103

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 7 to 11 and 20 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Arai et al. (Arai, US Patent No. 6,558,482).

Arai teaches an Nd-Fe-B type rare earth magnet alloy having a soft magnetic phase and a hard magnetic phase and a composition that is encompassed by the Nd-

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Fe-B type rare earth magnet alloy composition recited in each of acclaims 1, 7 to 9, 10 and 11 (column 2, lines 13 to 20). Arai teaches that the grain diameter of the hard and soft magnetic phase is 1 to 100 nm (column 7, lines 15 to 20) which is encompassed by each of the applicants' claims. Arai teaches that the alloy is formed into a ribbon (column 8, lines 20 to 33) as recited in applicants' claim 7. Arai teaches a specific example wherein the ribbon has a thickness of 30 microns which is encompassed by applicants' claim 8. Aria teaches that the alloy ribbon is heated to a temperature in the range of 400 to 900°C (column 9, lines 25 to 30) and ball milled (column 9, lines 42 to 50) as recited in applicants' claims 10 and 11 respectively. Thus, in addition to teaching an alloy composition that is encompassed by the claim 1, 7 to 9, 10 and 11, Arai also teaches a process of making the claimed alloy that is the same or similar to the process recited in product by process claims 10 and 11.

The claim and Aria differ in that Arai is silent with respect to the minimum distance between the soft magnetic phases.

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the alloy taught by the reference has a composition that is encompassed by the instant claims and is made by a process which is similar to, if not the same as, applicants' process of making the instantly claimed alloy. In view of this, the alloy taught by the reference would be expected to possess all the same properties as recited in the instant claims, In re Best, 195 USPQ, 430 and MPEP 2112.01.

"Where the claimed and prior art products are identical

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or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established, *In re Best*, 195 USPQ 430, 433 (CCPA 1977). 'When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.' *In re Spada*, 15 USPQ2d 655, 1658 (Fed. Cir. 1990). Therefore, the prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. *In re Best*, 195 USPQ 430, 433 (CCPA 1977)." see MPEP 2112.01.

5. Claims 1 to 11 and 20 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kojima et al. (Kojima, US Patent No. 6235,129)

Kojima teaches an Nd-Fe-B type rare earth magnet alloy having a soft magnetic phase and a hard magnetic phase (column 1, lines 59 to 61) and a composition that overlaps the Nd-Fe-B type rare earth magnet alloy composition recited in each of acclaims 1 to 11 (column 2, lines 13 to 37). Kojima teaches that the grain diameter of the hard and soft magnetic phase is 100 nm or less (column 5, lines 62 to 67) which is encompassed by each of the applicants' claims. Kojima teaches that the alloy is formed into a ribbon (column 6, lines 40 to 50) as recited in applicants' claim 7. Kojima teaches that the alloy ribbon is heated to a temperature in the range of 400 to 800⁰C (column 7, lines 28 to 30) and ground to powder (column 15, lines 34 to 37) as recited in applicants' claims 10 and 11 respectively. Thus, in addition to teaching an alloy composition that is encompassed by the claim 1 to 11, Kojima also teaches a process of making the claimed alloy that is the same or similar to the process recited in product by process claims 10 and 11.

The claim and Kojima differ in that Kojima is silent with respect to the minimum distance between the soft magnetic phases.

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the alloy taught by the reference has a composition that is encompassed by the instant claims and is made by a process which is similar to, if not the same as, applicants' process of making the instantly claimed alloy. In view of this, the alloy taught by the reference would be expected to possess all the same properties as recited in the instant claims, In re Best, 195 USPQ, 430 and MPEP 2112.01.

"Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established, In re Best, 195 USPQ 430, 433 (CCPA 1977). 'When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.' In re Spada, 15 USPQ2d 655, 1658 (Fed. Cir. 1990). Therefore, the prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. In re Best, 195 USPQ 430, 433 (CCPA 1977)." see MPEP 2112.01.

Response to Arguments

6. Applicant's arguments filed January 8, 2007 have been fully considered but they are not persuasive.

7. Applicants argue that Arai et al. discloses a magnetic powder for an isotropic bonded magnet and not an anisotropic magnet. The Examiner is not persuaded. None of applicants' claims are directed to an anisotropic magnet. Claims 9 to 11 are directed to "Powder of a Nd-Fe-B type rare earth magnet alloy" and are completely silent with

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respect to an anisotropic magnet. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Claims 1, 7 and 8 are directed to "A Nd-Fe-B type rare earth magnet alloy for a Nd-Fe-B anisotropic exchange spring magnet" (emphasis added by the Examiner); and claim 20 is directed to "A Nd-Fe-B type rare earth magnet alloy for producing a bulk of a Nd-Fe-B type anisotropic exchange spring magnet" (emphasis added by the Examiner). Thus, claims 1, 7, 8 and 20 merely recite Nd-Fe-B anisotropic exchange spring magnet as the intended use of the claimed Nd-Fe-B alloy or powder. It is the Examiner's position that, with respect to claims 1, 7, 8 and 20, this language is in the preamble and merely recites the intended use of the claimed alloy and therefore is given little, if any weight, See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951), *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 312 F.2d 937, 939, 136 USPQ 458, 459 (CCPA 1963).

8. Applicants argue that Kojima is directed to Sm-Co magnets and not Nd-Fe-B magnets and that Kojima's magnet include an amorphous phase. The Examiner is not persuaded. As set forth in the statement of the rejection, Kojima teaches an Nd-Fe-B magnet alloy at column 2, lines 13 to 37. As drafted applicants' claims do not recite any proportions or composition limitations for the Nd-Fe-B alloys recited in the instant claims, therefore the Nd-Fe-B alloy compositions recited in the applicants' claims encompass the Nd-Fe-B magnet alloy composition disclosed by Kojima in column 2,

lines 13 to 37. Regarding the amorphous phase taught by Kojima, there is nothing in applicants' claims that precludes the presence of an amorphous phase.

9. Applicants' arguments regarding motivation to combine and/or modify Arai or Kojima are not persuasive in that each of these references has been applied separately in their unmodified state, that is, the rejections are not based on a combination nor a modification of Arai or Kojima.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

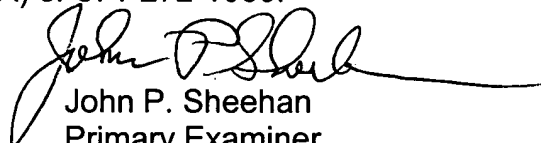
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Sheehan whose telephone number is (571) 272-1249. The examiner can normally be reached on T-F (6:45-4:30) Second Monday Off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


John P. Sheehan
Primary Examiner
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JPS